DOCUMENT RESUME

ED 323 452 CG 022 774

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TITLE Psychosocial Predictors of Maternal Mental Health, Parenting Attitudes, and Child Behavior in Single-Parent Families.
PUB DATE 90
CONTRACT IR01-NR01960-01
NOTE 39p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Coping; *Depression (Psychology); *Fatherless Family; Incidence; *Low Income; Mental Health; *Mothers; *Parent Attitudes; Parent Child Relationship; Predictor Variables; Preschool Children; Psychological Characteristics; Social Influences; Stress Variables

ABSTRACT

Low-income, single mothers and their children constitute a rapidly growing population at risk for adverse health outcomes. The mental health of these women is particularly at risk. This study investigated the prevalence of maternal depressive symptoms in low-income, single mothers of 1- to 4-year-old children; identified psychosocial predictors of depressive symptoms among the women; and investigated effects of maternal psychosocial factors, depressive symptoms, and parenting attitudes on children's behavior. The sample consisted of 225 mothers recruited from health department clinics. In-home interviews were conducted to obtain data on the mothers' everyday stressors, coping strategies, social resources, depressive symptoms, and parenting attitudes, as well as the mothers' reports of the index children's behavior. The prevalence of high depressive symptoms among the women was 59.6 percent. Higher depressive symptoms were associated with greater everyday stressors, fewer social resources, and greater use of avoidance coping. Neither social resources nor coping strategies buffered the relationship between everyday stressors and depressive symptoms. Maternal depressive symptoms predicted parenting attitudes. Parenting attitudes, in turn, predicted child behavior. The results suggest that depressive symptoms are indirectly associated with mothers' reports of child behavior through their influence on parenting attitudes. (Author/ABL)

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PSYCHOSOCIAL PREDICTORS OF MATERNAL MENTAL HEALTH, PARENTING ATTITUDES, AND CHILD BEHAVIOR IN SINGLE-PARENT FAMILIES

RUNNING HEAD: SINGLE-PARENT FAMILIES

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Data for this study were collected under grant #1R01 NR01960-01 awarded to Drs. Hall and Sachs by the National Center for Nursing Research, National Institutes of Health. The authors wish to express appreciation to Dr. Margaret R. Grier, Dr. Elizabeth R. Lenz, and Ms. Betsy Neale for constructive suggestions on the manuscript and to Ms. Linda Mitchell for manuscript preparation. An earlier version of this manuscript was presented at the 117th Annual Convention of the American Public Health Association, Chicago, IL, October 1989.

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ABSTRACT

The findings from the first wave of a three-wave panel study of predictors of health outcomes among low-income, single mothers and their 1- to 4-year-old children are presented. The purposes of the study were: (1) to investigate the prevalence of the maternal depressive symptoms; (2) to identify psychosocial predictors of depressive symptoms among the women; and (3) to investigate the effects of maternal psychosocial factors, depressive symptoms, and parenting attitudes on children's behavior. The sample consisted of 225 mothers recruited from health department clinics. In-home interviews were conducted to obtain data on the mothers' everyday stressors, coping strategies, social resources, depressive symptoms, and parenting attitudes, as well as the mothers' reports of the index children's behavior. The prevalence of high depressive symptoms among the women was 59.6%. Higher depressive symptoms were associated with greater everyday stressors, fewer social resources, and greater use of avoidance coping. Neither social resources nor coping strategies buffered the relationship between everyday stressors and depressive symptoms. Maternal depressive symptoms predicted parenting attitudes. Parenting attitudes, in turn, predicted child behavior. These findings suggest that depressive symptoms are indirectly associated with mothers' reports of child behavior through their influence on parenting attitudes.

PSYCHOSOCIAL PREDICTORS OF MATERNAL MENTAL HEALTH, PARENTING ATTITUDES, AND CHILD BEHAVIOR IN SINGLE-PARENT FAMILIES

Low-income, single mothers and their children constitute a rapidly growing population at high risk for adverse health outcomes (Hall, Williams, & Greenberg, 1985). The mental health of these women is particularly at risk (Belle, 1990). In turn, there is evidence that parental psychological disturbance places children at increased risk for negative outcomes (Orvaschel; Walsh-Allis, & Ye, 1988) and may lead to abusive parenting behavior (Susman, Trickett, Iannotti, Hollenbeck, & Zahn-Waxler, 1985).

In this report, the findings from the first wave of a three-wave panel study of predictors of health outcomes among low-income, single mothers and their children are presented. The purposes of the study were: (1) to determine the prevalence of depressive symptoms among a sample of low-income, single mothers with children between 1 and 4 years of age; (2) to identify psychosocial predictors of depressive symptoms and parenting attitudes of the women; and (3) to examine the effects of maternal psychosocial factors, depressive symptoms, and parenting attitudes on children's behavior. Specifically, the interrelationships of maternal depressive symptoms, parenting attitudes, and child behavior, and the effects of chronic stressors, social resources, and coping on these three constructs were investigated.

BACKGROUND

Maternal Depression, Parenting Attitudes, and Child Behavior

In studies of mothers with young children, prevalence estimates of high depressive symptoms vary from 35% (Orr & James, 1984) to 57% (Hall & Farel, 1988). Depressive symptoms are highest among women, young adults,

those with young children, the unmarried, those with low income, the poorly educated, and the unemployed (Brown, Bhrolchain, & Harris, 1975; Comstock & Helsing, 1976; Eaton & Kessler, 1981). The high prevalence of depressive symptoms among mothers with young children, coupled with the fact that depressive symptoms tend to persist over time (Richman, Stevenson, & Graham, 1982), is of particular concern because of the potential ramifications for both mothers and their children.

Adverse health outcomes for the child are a possible consequence of maternal depression. Parental psychological disturbance and a stressful family environment have been associated with child morbidity (Beautrais, Fergusson, & Shannon, 1982) and with problems in children's social, emotional, and behavioral functioning (Orvaschel, Weissman, & Kidd, 1980). The family environment of depressed mothers has been characterized by conflict and decreased expressiveness, cohesion, and organization (Billings & Moos, 1983); hostility toward the child (Weissman & Paykel, 1974); and diminished maternal involvement, less affection, and ineffective communication (Weissman, Paykel, & Klerman, 1972). Decreased responsiveness to the child and inadequate child-rearing practices have also been noted (Zuckerman & Beardslee, 1987).

Maternal depression may affect attitudes about child-rearing that are critical to the perception, assessment, and interpretation of child behaviors (Elster, McArnaney, & Lamb, 1983). It is unclear from previous research whether a mother's depressive symptoms directly influence child outcomes or whether their effects occur through their impact on parenting attitudes and behavior (Hall & Farel, 1988).

Chronic Stressors

In comparison to acute stressors, chronic stressors have a greater etiologic role in the development of depressive symptoms (Kanner, Coyne, Schaefer, & Lazarus, 1981; Kaplan, Roberts, Camacho, & Coyne, 1987). Among low-income mothers of young children, chronic stressors such as inadequate income, unemployment, inadequate housing, parenting worries, and problematic interpersonal relationships were associated with high depressive symptoms (Belle, 1982; Hall, 1990; Hall et al., 1985). However, few studies simultaneously examined the effects of chronic stressors on both maternal mental health and child health.

Social Resources

Previous research suggests that the marital status and social resources of the mother have significant implications for their health and that of their children. In comparison to married mothers, single mothers were more socially isolated, received less emotional and parental support, and had more unstable social networks (Weinraub & Wolfe, 1983). Single mothers also were less successful in gaining behavioral compliance from preschool children, were more authoritarian, and were less affectionate than married mothers (Heatherington, Cox, & Cox, 1978). Mothers raising their children without help had more restrictive child-rearing attitudes and behaviors and reacted inconsistently toward their children (King & Fullard, 1982). Mothers with support were less punitive (Field, Widmayer, Stringer, & Ignatoff, 1980), provided a more organized, stimulating environment (Elster et al., 1983), and had more appropriate parenting behaviors (Colletta & Gregg, 1981). Parenting problems among single mothers of preschool children were associated with the absence of a close friend and a lack of instrumental assistance (Norbeck & Sheiner, 1982).

The absence of the close relationship with a family member was related to problems in the child's behavior and emotional development (Norbeck & Sheiner, 1982).

There is considerable debate in the literature concerning the relationships of social support to mental and physical well-being. While interaction effects supporting the buffering hypothesis were reported by some investigators (e.g., Boyce, 1981), others reported only main effects (Schaefer, Coyne, & Lazarus, 1981). Some researchers, not investigating stress, found significant positive relationships between social support and health outcomes (e.g., Hall, Schaefer, & Greenberg, 1987).

Evidence for the beneficial effects of social support on mental health is stronger when social support is measured in terms of the quality as opposed to the quantity of social ties (Hall et al., 1987). Family support (Holahan & Moos, 1985) and a close relationship with an intimate or confidant (Brown et al., 1975) are important to the mental health of women. Few researchers have measured social support from a multidimensional perspective, and few have considered intimate or confidant relations as a potential source of stress (Hall et al., 1987; Rook, 1984).

Coping Strategies

Extensive literature exists on the relationship of coping to stress and depression in patient and community samples. Little attention has been given to the relationship between social resources and coping (Holahan & Moos, 1987). Problem-focused coping strategies moderated the negative effects of stressful life events on psychological functioning (Billings & Moos, 1981). In contrast, avoidance strategies were positively correlated with psychological distress (Billings & Moos, 1981), and a lack of family support (Cronkite & Moos, 1984). Similarly, the use of emotional release

was associated with greater depression and was a more frequently used coping strategy among women (Billings & Moos, 1984). There is no consensus on which coping strategies are most effective and whether coping is directly related to mental health or whether it modifies the relationship between stresses and mental health (Aldwin & Revenson, 1987; Folkman & Lazarus, 1988).

Purpose

In this study, the potential linkages among chronic stressors, social resources, coping strategies, maternal depressive symptoms, parenting attitudes, and child behavior were investigated simultaneously. Social resources and coping were measured using a multidimensional approach. The question of main or modifying effects of both social resources and coping was examined, as well as the question of direct or indirect effects of maternal depressive symptoms on child behavior. The goal was to learn more about the factors that influence maternal depressive symptoms and child behavior in the vulnerable population of low-income, single-mother families.

METHODS

Sample

Data for this report were collected in the first wave of a three-wave panel study of predictors of health outcomes in low-income, single-mother families. Mothers were recruited in clinics of a county health department. Inclusion criteria were: (a) at least 18 years of age; (b) never-married, widowed, divorced or separated for at least 6 months; (c) family income at or below 185% of poverty level; and (d) at least one child between one and four years of age. A total of 278 women who were approached met the inclusion criteria; of these, 248 agreed to participate (89%). Twenty-

three of the women were lost from the study prior to the first wave of data collection. The final sample consisted of 225 mothers.

For mothers with more than one child in the one to four year age range, a single child was purposively selected as the index child to equalize the age distribution of the children. Of the index children, 30.2% were 1-year-olds, 22.7% were 2-year-olds, 26.7% were 3-year-olds, and 20.4% were 4-year-olds. Forty-three percent were males; 57% were females.

Characteristics of the study sample are displayed in Table 1. The mean age of the mothers was 25.8 years (SD = 4.9), with a range of 18 to 48. More than 90% of the sample reported an annual household income under $10,000. The majority had never married (63.6%) and were unemployed (66.7%). The mothers had a mean of 11.4 years of education (SD = 2.0), but more than half (54.6%) had at least a high school education. The mothers had a mean of 2.4 children (SD = 1.2, range = 1-7).

INSERT TABLE 1 ABOUT HERE

Measures of the Dependent Variables

Depressive symptoms. The 20-item Center for Epidemiological Studies--Depression Scale (CES-D; Radloff, 1977) measured depressive symptoms of the mothers. Respondents rated how frequently each symptom was experienced during the past week on a 4-point scale ranging from rarely or none of the time (0) to most or all of the time (3). The ratings for the four positive items were reversed and added to those of the other 16 items, forming a summary score ranging from 0-60. A score greater than 15 indicates a high level of depressive symptoms. This cutpoint corresponded to the 80th percentile of scores in community samples (Comstock & Helsing, 1976) and

has been used extensively in other studies. The CES-D has high internal consistency with Cronbach's alphas ranging from .86 to .90, and good test-retest reliability (Comstock & Helsing, 1976; Hall et al., 1985; Radloff, 1977). Cronbach's alpha in this sample was .86. Substantial correlations of the CES-D with other self-report measures of depressive symptoms and with clinical ratings of depression support the scale's validity (Berkman et al., 1986).

Parenting attitudes. Parenting attitudes were measured by 20 items of the Index of Parental Attitudes (Hudson, 1982). The mother indicated the degree to which each statement described her attitude toward the index child on a scale of rarely or none of the time (0) to most or all of the time (4). The 10 negative items were reversed and summed with scores on the 10 positive items to form a cumulative score, with a range of 0 to 80. Higher scores indicate more favorable parenting attitudes. Internal consistency and construct validity were supported by the findings of Hudson (1982). Cronbach's alpha in this study was .86.

Child behavior. The 30-item Preschool Behavior Questionnaire (PBQ; Behar & Stringfield, 1974) was used to measure mothers' perceptions of the index child's behavior. Each item was rated on a 3-point scale of does not apply (0), sometimes applies (1), and frequently applies (2). The score was obtained by summing responses to all items. The validity of the PBQ was supported by its ability to distinguish between preschoolers with and without a diagnosis of emotional disturbance (Behar & Stringfield, 1974). Teacher and teacher aide ratings were strongly correlated indicating good interrater reliability, and test-retest reliability averaged .87 (Behar & Stringfield, 1974). Bee, Hammond, Eyres, Barnard, & Snyder (1986) reported

a Cronbach's alpha of .83 for a sample of mothers of young children. Cronbach's alpha in this sample was .84.

Measures of the Independent Variables

Chronic stressors. The 20-item Everyday Stressors Index (ESI; Hall, 1983) assesses common problems faced by mothers with young children and was used to measure chronic daily stressors. Mothers rated how much each problem worried, upset, or bothered them from day to day on a 4-point scale ranging from not at all bothered (0) to bothered a great deal (3). Item values were summed for a total score ranging from 0 to 60. Construct validity of the index was supported by discrimination of everyday stressors from measures of maternal depressive and psychosomatic symptoms using factor analytic procedures (Hall, 1983; Hall, 1987). Cronbach's alpha in this sample was .82, comparing favorably to previous alphas of .80 to .85 (Hall et al., 1985; Hall, 1987).

Coping strategies. Mothers' coping strategies were measured with indices developed by Billings and Moos (1981) that assess: active-behavioral strategies--overt behavioral attempts to confront the problem directly; active-cognitive strategies--to manage the appraisal of an event's stressfulness; and avoidance-oriented strategies--ways to avoid confronting the problem or to reduce tension through specific behaviors. Respondents were asked to indicate how often they used each of the 32 strategies to deal with stressful situations or problems on a scale ranging from not at all (0) to fairly often (3). Scores were derived for each of the three strategies by summing the responses to their respective items. The measures distinguished depressed patients, depressives in remission, and community controls (Billings & Moos, 1985). Holahan and Moos (1987) reported Cronbach's alphas of .62 for active-cognitive coping, .74 for

active-behavioral coping, and .60 for avoidance coping. Cronbach's alphas in this sample were .66 for active-behavioral, .66 for active-cognitive, and .39 for avoidance.

Social resources. Four dimensions of social resources were measured: functional support, the quality of family relationships, tangible support, and the quality of primary intimate relationships.

Functional social support was assessed with the 8-item Duke-UNC Functional Social Support Questionnaire (FSSQ; Broadhead, Gehlbach, de Gruy, & Kaplan, 1988, 1989). The mothers were asked to indicate for each item their perception of the amount of support they received on a scale of much less than I would like (0) to as much as I would like (4). A cumulative score was derived. Estimates of internal consistency of the scale were not reported by Broadhead et al. (1988, 1989), but support for validity was demonstrated by correlations with other measures of social support (Broadhead et al., 1988) and its ability to distinguish high and low users of medical care (Broadhead et al., 1989). Cronbach's alpha in this sample was .78.

The 31-item Family Function Questionnaire (FFQ) was used to measure the quality of family relationships (Zyzanski, Reeb, Graham, & Kitson 1987). It assesses four dimensions of family relationships: satisfaction with family functioning, family cohesion, family adaptability, and quality of family life. For each item, the mothers identified the response (1 = almost never to 5 = almost always) that best described the people they thought of as close family. Ratings for the 12 negatively phrased items were reversed, items of the subscales summed, and a mean score computed for each subscale. A composite family function score was derived by summing the four mean subscale scores. The reliability and validity of each

instrument from which the FFQ was derived have been strongly supported (e.g., Hudson, 1982; Olson, Russell, & Sprenkle, 1983; Smilkstein, 1978). Zyzanski et al. (1987) derived the 31-item reduction of the earlier measures through reliability and factor analytic studies. The FFQ was a significant predictor of intrapartum complications and low birth weight in urban black women, controlling for a variety of known risk factors for poor pregnancy outcome (Reeb, Graham, Zyzanski, & Kitson, 1987). Lower family function scores were associated with higher rates of physician visits for respiratory illness and otitis media in infants during the first 15 months of life (Foulke, Reeb, Graham, & Zyzanski, 1988). Cronbach's alpha in the present study was .96.

The tangible aid subscale of the Interpersonal Support Evaluation List (ISEL; Cohen & Hoberman, 1983) was used to measure perceived tangible social support. Respondents were asked to indicate whether each of 10 statements was true (1) or false (0) about themselves. Responses were summed to form a cumulative score; higher scores indicate greater tangible support. This measure has been used extensively in previous research and has demonstrated substantial internal consistency, good test-retest reliability, and support for construct validity (Cohen & Hoberman, 1983; Cohen, Sherrod, Drury, & Clark, 1986). Cronbach's alpha in this study was .83.

The primary intimate was defined as the person to whom the respondent felt closest (excluding her children). The quality of the intimate relationship was measured with the Autonomy and Relatedness Inventory (ARI; Schaefer & Edgerton, 1982). Respondents rated 32 descriptors of the intimate's behavior toward them on a 5-point scale of not at all like (0) to very much like (4) the intimate. Negative items were reversed and

ratings summed to form a cumulative score ranging from 0 to 128; higher scores denote more positive ratings of the relationship. Support for the construct validity and internal consistency of the ARI have been reported (Hall & Kiernan, 1990; Hall et al., 1987). The measure demonstrated good internal consistency in this sample, with a Cronbach's alpha of .94.

Social desirability. The M-C (20) (Strahan & Gerbasi, 1972), a 20-item version of the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) was used to measure socially desirable response set. Respondents rated each item as either true or false. The greater number of "correct" responses, the higher the social desirability score. Reliability coefficients ranged from .73 to .83 in four samples (Strahan & Gerbasi, 1972). In this sample the reliability coefficient (Kuder-Richardson-20) was .74.

Procedure

Women were approached in clinic waiting areas of a county health department. The purpose of the study was explained, and women meeting the inclusion criteria were invited to participate. Those interested were given further information about the nature of participation, and informed consent was obtained. Trained interviewers, using a structured questionnaire, conducted in-home interviews lasting approximately one hour and 15 minutes. Each mother was paid $15 for participating in this interview.

Data were analyzed using descriptive, correlational, and regression analyses. Two-sample t-tests were used to compare mean scores on the study variables by depressive symptom status. Backward stepwise elimination was used in stages to identify predictors of depressive symptoms, parenting attitudes, and child behavior. In all regression models, income,

employment status, race, and social desirability were entered as control variables. The recommendations of Baron and Kenny (1986) for assessing potential mediating and moderating effects were followed.

RESULTS

Descriptive Analyses of Dependent Variables

Depressive symptoms. The mean CES-D score of the mothers was 19.2 (SD = 10.3; range 0-52); 59.6% of the mothers scored in the high range (CES-D ≥ 16). Although all of the mothers were at or below 185% of poverty level for family size, lower family income was still associated with higher depressive symptoms (r = -.24, p = .0002). Employed mothers reported lower CES-D scores than unemployed mothers (16.1 versus 20.7; t_{223} = 3.23, p = .001). There were no significant differences in depressive symptoms by race. Mean scores on the CES-D were significantly higher for separated mothers than for divorced mothers (20.8 versus 14.6; p = .04). There were no differences among other marital status categories. Higher educational level was associated with fewer depressive symptoms (r = -.20, p = .003). Younger mothers reported higher depressive symptoms, but the correlation was weak (r = -.15, p = .03). The age of the index child was not correlated with depressive symptoms. Number of children was weakly correlated with depressive symptoms (r = .14, p = .04).

Parenting attitudes. The mean score for parenting attitudes was 66.2 (SD = 8.8; range = 34-80). Negative parenting attitudes were correlated with lower income (r = .13, p = .05). Employed mothers reported more positive parenting attitudes than unemployed mothers (t_{223} = -2.51, p = .01). There were no differences in parenting attitudes by mothers' race or marital status. Higher educational level was correlated with more positive parenting attitudes (r = .14, p = .03). Age of the mothers was

not significantly associated with parenting attitudes nor was age of the index child. Number of children was weakly correlated with parenting attitudes (r = -.13, p = .05). Parenting attitudes did not differ by gender of the index child.

Child behavior. The mean PBQ score was 19.5 (SD = 8.1; range = 3-42). Lower income was associated with greater child behavior problems (r = -.16, p = .02). PBQ scores did not differ by the mothers' employment status, race, or marital status. Educational level was not related to child behavior problems. The age of the index child was correlated with child behavior (r = -.15, p = .02) and with number of children (r = .17, p = .01). PBQ scores did not differ by gender of the index child.

Descriptive Analyses of Independent Variables

Intercorrelations of everyday stressors, coping strategies, and social resources are presented in Table 2. All the measures of social resources were positively correlated with one another. The fewer the social resources, the higher the level of chronic stressors reported. This relationship held for all four measures of social resources. Women reporting higher everyday stressors also reported greater use of avoidance coping. Greater use of active-behavioral coping and less use of avoidance coping were associated with higher social resources.

INSERT TABLE 2 ABOUT HERE

T-tests for differences in the means of study variables by depressive symptom status are shown in Table 3. In comparison to mothers with CES-D scores less than 16, mothers with high depressive symptoms (CES-D ≥ 16) reported more everyday stressors, less use of active behavioral coping

strategies, and greater use of avoidance coping strategies. They also reported fewer social resources, less favorable parenting attitudes, and more child behavior problems.

INSERT TABLE 3 ABOUT HERE

Regression Analyses

The results of backward stepwise elimination to identify the best predictive models for depressive symptoms, parenting attitudes, and child behavior are shown in Table 4 and summarized in the Figure. The psychosocial variables included in each initial model were the four measures of social resources, the three coping strategies, and everyday stressors. These variables were allowed to eliminate at $p > .05$. Although income, employment status, race, and social desirability were retained in each regression model as controls, only social desirability was associated with any study variable, that being parenting attitudes.

INSERT TABLE 4 AND THE FIGURE ABOUT HERE

Predictors of depressive symptoms. Poorer family functioning, less tangible support, higher everyday stressors, and greater use of avoidance coping predicted higher depressive symptoms. The standardized regression coefficients indicate that everyday stressors and avoidance coping were the strongest predictors. The strength of the association of avoidance coping with depressive symptoms ($\beta = .37$) was twice that of everyday stressors ($\beta = .17$) and three times greater than that of the quality of family

relationships (β = -.12). Together these four variables plus the four control variables accounted for 42% of the variance in depressive symptoms.

The potential buffering effects of social resources and coping strategies on the relationship of everyday stressors with depressive symptoms were tested for each social resource and coping strategy measure. After entering the control variables and main effects, individual interaction terms (everyday stressors x social resources and everyday stressors x coping strategies) were entered into separate regression models, each using one of the four measures of social resources or one of the three measures of coping strategies. None of the interaction terms was significant, providing no support for the buffering hypothesis.

Predictors of parenting attitudes. A similar backward stepwise elimination procedure was conducted to determine the best predictors of parenting attitudes, but with depressive symptoms as an additional predictor in the initial model. The only variables that added significantly to the prediction of parenting attitudes were social desirability, depressive symptoms, and one measure of social resources -- the quality of the primary intimate relationship. The standardized regression weights indicated modest partial correlations of parenting attitudes with depressive symptoms (β = .24) and the quality of the primary intimate relationship (β = .25). The higher the depressive symptoms and the poorer the quality of the primary intimate relationship, the less favorable the parenting attitudes. The model accounted for 24% of the variance in parenting attitudes.

Predictors of child behavior. Child behavior was predicted using the same initial model, but incorporating both depressive symptoms and parenting attitudes on the first step. Higher everyday stressors, greater

use of active-cognitive coping, and less favorable parenting attitudes were related to more child behavior problems. Parenting attitudes displayed the strongest effect (β = -.56). This variable was approximately three times more strongly associated with child behavior problems than were everyday stressors (β = .17) and active-cognitive coping (β = .20). The model accounted for 45% of the variance in child behavior problems.

DISCUSSION

The findings of this study document the high-risk status of low-income, single mothers for depressive symptoms. The prevalence of high depressive symptoms (59.6%) in this sample of low-income, single mothers is greater than that reported in other studies using the CES-D with similar samples (Orr & James, 1984; Hall & Farel, 1988). The mean CES-D score of 19.2 also is high in comparison to the means in other studies, such as 8.7 in the general population (Sayetta & Johnson, 1980) and 18.7 in a sample of low-income mothers with young children (Hall et al., 1985). The substantial prevalence of depressive symptoms among this high-risk group has serious implications not only for their mental health but also for the well-being of their children.

In this study, all four measures of social resources were inversely related to avoidance coping and positively correlated with active-behavioral coping. While active-cognitive coping was moderately correlated with active-behavioral coping, it was significantly correlated with only two of the measures of social resources--functional social support and the quality of family relationships. These findings are similar to those of Dunkel-Schetter, Folkman, and Lazarus (1987) who found different coping strategies associated with different types of social support. Our findings

also converge with those of Billings and Moos (1981) who reported fewer social resources to be associated with greater use of avoidance coping.

There was no evidence that any of the dimensions of social resources or coping strategies buffered the relationship between everyday stressors and depressive symptoms. As in previous research, everyday stressors were directly associated with maternal depressive symptoms (Belle, 1982; Hall, 1990; Hall et al., 1985). Only main effects for everyday stressors, avoidance coping, the quality of family relationships, and perceived tangible support were observed. These variables accounted for a substantial portion of the variance (42%) in depressive symptoms. Mothers who lack support from family and friends may be more likely to use avoidance as a strategy to deal with chronic stressors. This approach may result in greater depression, since direct attempts to reduce stressors are not made. Billings and Moos (1981), using the same measure of avoidance coping, found a direct correlation with psychological distress. In previous research, a lack of family support was correlated with the use of avoidance coping (Cronkite & Moos, 1984) and depression and anxiety (Folkman, Lazarus, Gruen, & DeLongis, 1986), psychological strain (Holahan & Moos, 1985), and conflict in marital and parenting roles (Pearlin & Schooler, 1978). Our findings contrast somewhat with those of Billings and Moos (1981), who found problem-focused coping buffered the relationship between stressful life events and psychological functioning, although they measured acute as opposed to chronic stressors.

The finding that the four indicators of social resources were differentially predictive underscores the importance of a multidimensional approach to the assessment of social resources. This finding is consistent with previous theoretical formulations of social support as a

multidimensional construct (House 1981; Kahn, 1979). In contrast, Brown (1986) did not find emotional, material, informational, and appraisal support were separate dimensions; instead, support was a unidimensional construct. Further investigation of the dimensionality of social resources is needed to advance our knowledge of this construct. Also, greater attention to the source of support is warranted in future studies, as this may be a key to addressing the question of dimensionality.

Only depressive symptoms and the quality of the primary intimate relationship predicted parenting attitudes. These two factors plus controls explained relatively little of the variance in parenting attitudes. Other explanatory variables, untapped by the measures used in this study, apparently were operating. Panaccione and Wahler (1986) emphasized the importance of the contextual influence of maternal depression and adult social relationships on parenting behavior. This contention is supported by the findings of this study. Further exploration of the predictors of parenting attitudes is warranted.

The quality of the mothers' primary intimate relationship was negatively correlated with their parenting attitudes, but was not associated with the mothers' reports of child behavior. Snyder and his colleagues (Snyder, Klein, Gdowski, Faulstich, & LaCombe, 1988) found that parents' reports of emotional or behavioral difficulties of their children were positively associated with dissatisfaction with the parent-child relationship, but were not correlated with the quality of the marital relationship. While the sample of Snyder and his colleagues consisted of married couples, their findings are similar to those in this study of single mothers.

These findings suggest that parenting attitudes mediate the relationship between maternal depressive symptoms and child behavior. This indirect relationship between maternal depressive symptoms and child behavior is in contrast to the findings of Fendrich, Warner, and Weissman (1990). They reported both parental depression and family discord predicted conduct disorder in children. Similarly, Hammen, Adrian, Gordon, Burge, and Jaenicke (1987) reported both maternal depression and chronic stress predicted psychopathology in children. In other studies, depressed mothers reported their children had more behavior problems than nondepressed mothers (Brody & Forehand, 1986; Webster-Stratton & Hammond, 1988). However, the effects of parenting attitudes were not examined or controlled in these studies.

The findings of other researchers support an indirect relationship between maternal depressive symptoms and child behavior. Goodman and Brumley (1990) found maternal mental health influenced the quality of parenting which, in turn, was associated with child behavior. Dumas, Gibson, and Albin (1989) reported that indiscriminate maternal responses to child behavior mediated the relationship between maternal depression and mothers' reports of child behavior. The more depressed the mother, the greater her indiscriminate responses to the child, and the more problematic the child's behavior. Sachs and Hall (1990) also found depressive symptoms were indirectly associated with child behavior, using the CES-D scale and two different measures of parenting attitudes and a different measure of child behavior from the measure in the present study. In that study, depressive symptoms were moderately correlated with both measures of parenting attitudes which, in turn, were correlated with mothers' ratings of child behavior.

The findings of this study do not support the depression--distortion hypothesis (Richters & Pelligrini, 1989) that depressed mothers have distorted perceptions of their children's behavior. However, depressed mothers may have lower confidence in their parenting skills than nondepressed mothers (Cutrona & Troutman, 1986; Fleming, Flett, Ruble, & Shaul, 1988), which may be expressed negatively in their parenting attitudes. Children, in turn, may react to this negativity with more behavior problems.

The finding that depressed mothers scored more negatively than nondepressed mothers on every variable except for active-cognitive coping supports Beck's (1982) theory that depressed individuals have a more negative attributional style than those who are nondepressed. Mitchell and Hodson (1983), in a study of battered women, found that a lack of social support and greater use of avoidance coping were related to higher depressive symptoms and lower self-esteem. Webster-Stratton and Hammond (1988) suggested that the experiences of depressed mothers lead to the development of negative attitudes about their life circumstances, parenting skills, and children's behavior. As Webster-Stratton and Hammond noted, the process by which depressed mothers translate negative attitudes into parenting behaviors is unclear, as is the mechanism by which children's behavior is affected.

The cross-sectional nature of these data permits several alternative explanations of the findings. Mothers who are depressed may have a distorted perception of the support available to them. The depressed mother's behavior may alienate social network members or erode existing support from family and friends. Aversive child behaviors may negatively

influence parenting attitudes which, in turn, may lead to greater depressive symptoms because of guilt or feelings of parental incompetence.

The coping strategies scales did not demonstrate good internal consistency as evidenced by Cronbach's alphas. These findings suggest that modifications in scale configurations may be needed to derive more homogeneous measures of coping strategies.

The findings of this study suggest that both low-income single mothers and their children may be affected by the social and psychological environment in the family when there are fewer social resources, increased chronic stressors, and greater use of avoidance coping strategies. Greater attention should be paid by health professionals to the potential negative consequences of these factors on single mothers and their young children. Assessment of mothers' social resources, chronic stressors, coping strategies, depressive symptoms, and parenting attitudes may lead to identification of areas for intervention to enhance the well-being of low-income, single-mother families.

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Table 1. Sociodemographic Characteristics of the Study Sample (N = 225)

Characteristics	N	%
Annual Household Income		
Under $3,000	100	44.6
$3,000 - 5,000	57	25.3
$5,001 - 10,000	49	21.9
$10,001 - 15,000	11	4.9
$15,001 - 20,000	6	2.7
Over $20,000	2	0.9
Marital Status		
Never Married	143	63.6
Divorced	44	19.6
Separated	35	15.6
Widowed	3	1.3
Employment Status		
Employed	75	33.3
Unemployed	150	66.7
Education		
Less than 10 years	35	15.6
10-11 years	67	29.8
High School	77	34.2
Postsecondary	46	20.4
Race		
Black	132	58.7
White	91	40.4
Asian	1	0.4
Other	1	0.4

Table 2. Intercorrelations of Chronic Stressors, Coping Strategies, and Social Resources (N = 225)

Variables	1	2	3	4	5	6	7	8
1. Chronic Stressors (ESI)	--							
2. Active-Cognitive Coping	.07	--						
3. Active-Behavioral Coping	-.12	.54***	--					
4. Avoidance Coping	.41***	.02	-.19*	--				
5. Functional Social Support (FSSQ)	-.34***	.22**	.45***	-.40***	--			
6. Quality of Family Relationships (FFQ)	-.42***	.16*	.28***	-.30***	.54***	--		
7. Tangible Support (ISEL subscale)	-.28***	.13	.23**	-.21*	.46***	.38***	--	
8. Quality of primary intimate relationship (ARI)	-.20*	.15	.21*	-.30***	.32***	.35***	.23**	--
M	23.1	22.3	21.4	7.7	19.4	10.1	7.9	98.7
SD	10.2	4.3	5.1	3.2	7.8	3.7	2.6	21.6
Potential range	0-60	0-33	0-39	0-24	0-32	0-16	0-10	0-128
Actual range	2-51	0-31	0-34	0-18	0-32	.75-16	0-10	36-128

*$p \leq .01$; **$p \leq .001$; ***$p \leq .0001$.

Table 3. T-tests for Differences in Means of Study Variables by Depressive Symptom Status (N = 225)

Variable	CES-D < 16 (low) (n = 91) M	SD	CES-D ≥ 16 (high) (n = 134) M	SD	t_{223}
Everyday Stressors	18.7	8.7	26.1	10.1	5.7***
Active-Cognitive Coping	22.9	4.5	21.8	4.1	-1.9
Active-Behavioral Coping	22.6	5.6	20.5	4.5	-3.0*
Avoidance Coping	6.2	2.7	8.7	3.0	6.5***
Quality of Primary Intimate Relationship	105.2	19.2	94.3	22.1	-3.8**
Quality of Family Relationships	11.7	3.2	9.0	3.7	-5.7***
Functional Social Support	22.9	7.0	17.0	7.4	-5.9***
Tangible Social Support	8.6	2.2	7.4	2.7	-3.6**
Parenting Attitudes	70.0	6.6	63.6	9.2	-6.1***
Child Behavior	16.3	6.9	21.7	8.2	5.2***

*$p < .01$; **$p < .001$; ***$p \leq .0001$.

Table 4. Multiple Regression Estimates for the Best Predictive Models of Depressive Symptoms, Parenting Attitudes, and Child Behavior (N = 225)

Outcome	Variables in Model	Regression Coefficient	Standardized Estimates (ß)
Depressive Symptoms	Income	-0.9820	-.11
	Employment Status	-1.8845	-.09
	Race	-1.7614	-.08
	Social Desirability	-0.1183	-.04
	Quality of Family Relationships	-0.3445	-.12*
	Tangible Support	-0.5670	-.14*
	Everyday Stressors	0.1706	.17*
	Avoidance Coping	1.2002	.37***
	Model R^2 = .42; ($F_{8,216}$ = 19.46)***		
Parenting Attitudes	Income	0.0831	.01
	Employment Status	1.5339	.08
	Race	-0.1298	-.01
	Social Desirability	0.4713	.20**
	Depressive Symptoms	-0.2042	-.24**
	Quality of Primary Intimate Relationship	0.1035	.25***
	Model R^2 = .24; ($F_{6,218}$ = 11.61)***		
Child Behavior	Income	-0.7886	-.11
	Employment Status	0.5252	.03
	Race	0.5313	.03
	Social Desirability	-0.1128	-.05
	Everyday Stressors	0.1369	.17**
	Active-Cognitive Coping	0.3707	.20**
	Parenting Attitudes	-0.5178	-.56***
	Model R^2 = .45; ($F_{7,217}$ = 25.29)***		

*$p \leq .05$; **$p \leq .001$; ***$p \leq .0001$.

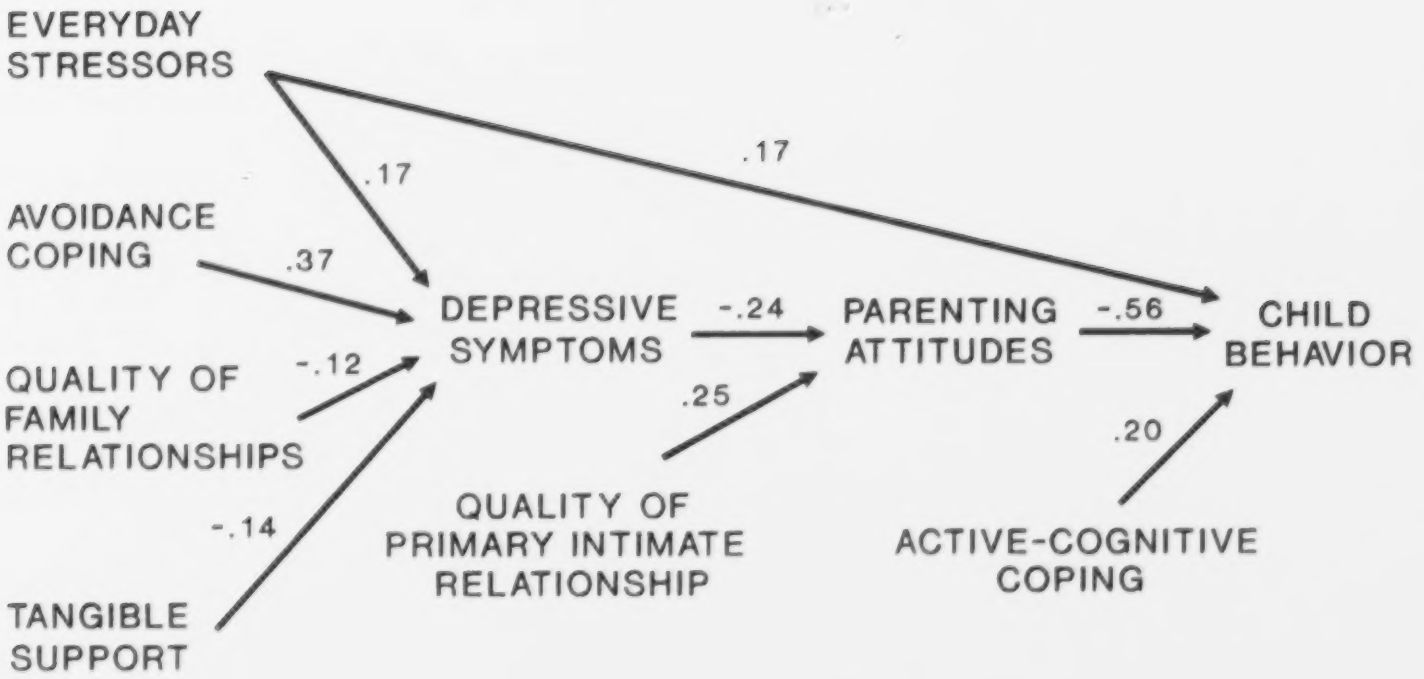

Figure. Interrelationships of Maternal Psychosocial Factors, Depressive Symptoms, Parenting Attitudes, and Child Behavior

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